AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): Process for the catalytic polymerization of olefins, wherein olefins are contacted with a particulate catalyst in a fluidized bed and in a moving bed such that the residence time in the fluidized bed and the residence time in the moving bed are independently controlled by controlling the inflow of polymeric particles into the moving bed or by controlling the outflow of polymeric particles out of the moving bed.

Claim 2 (Original): Process according to claim 1, wherein the residence time in the moving bed is independently controlled.

Claim 3 (Previously Presented): Process according to claim 1, wherein the residence time in the moving bed is controlled by controlling the outflow rate of particles from the moving bed.

Claim 4 (Previously Presented): Process according to claim 1, wherein the moving bed is separated from the fluidized bed by a separation fluidum.

Claim 5 (Original): Process according to claim 4, wherein the separation fluidum is supplied to the moving bed.

Claim 6 (Currently Amended): Process according to claim 4, wherein the separation fluidum is a gas or a liquid and selected from the group ~~comprising~~ consisting of an inert gas or liquid, ~~such as~~ nitrogen, C_1-C_{12}-alkane, ~~or~~ olefins ~~such as C_1-C_{12}-alkylene~~, ~~or~~ and mixtures thereof.

Claim 7 (Original): Process according to claim 6, wherein the separation fluidum is a liquid evaporating under the residing polymerization conditions.

Claim 8 (Previously Presented): Process according to claim 5, wherein liquid olefins are added as separation fluidum such that the polymerization in the moving bed is a condensed mode polymerization.

Claim 9 (Previously Presented): Process according to claim 1, wherein liquid olefins are added to the fluidized bed such that the polymerization in the fluidized bed is in a condensed mode polymerization.

Claim 10 (Previously Presented): Process according to claim 4, wherein the separation fluidum is a polymerization monomer or comonomer, or mixtures thereof.

Claim 11 (Currently Amended): Reactor system comprising a fluidized bed reactor provided with a reactant inlet, a product outlet and means for maintaining a fluidized bed in the fluidized bed reactor and with a moving bed reactor provided with an inlet directly connected to the fluidized bed reactor and an outlet connected to the fluidized bed reactor such that the residence time in the fluidized bed reactor and the residence in the moving bed reactor are independently controlled, by controlling the amount of polymeric particles entering the moving bed or by controlling the outflow of polymeric particles out of the moving bed.

Claim 12 (Original): Reactor system according to claim 11, wherein the inlet of the moving bed reactor is arranged in the fluidized bed reactor.

Claim 13 (Previously Presented): Reactor system according to claim 11, wherein the outlet of the moving bed reactor is connected to the fluidized bed reactor.

Claim 14 (Previously Presented): Reactor system according to claim 11, wherein the moving bed is arranged in, around or adjacent to the fluidized bed reactor.

Claim 15 (Previously Presented): Reactor system according to claim 11, wherein the moving bed reactor is provided with means for supplying a separation fluidum.

Claim 16 (Currently Amended): Reactor system according to claim 11, wherein the system comprises a separation fluidum and wherein the separation fluidum is a gas or liquid and selected from the group ~~comprising~~ consisting of an inert gas or liquid, ~~such as~~ nitrogen, ~~and~~ C_1-C_{12}-alkane, ~~or~~ olefins ~~such as C_1-C_{12}-alkylene~~ and mixtures thereof.

Claim 17 (Previously Presented): Reactor system according to claim 11, wherein the inlet of the moving bed reactor is provided with a diverging section.

Claim 18 (Previously Presented): Reactor system according to claim 15, wherein the outlet of the moving bed reactor is provided with means for controlling the outflow rate of particles from the moving bed.

Claim 19 (Cancelled).

Claim 20. (New): Reactor system according to claim 6, wherein the separation fluidum comprises C_1-C_{12}-alkylene.